



Performance 2008

Productivity, Employment, and Growth in the
World's Economies

Productivity Brief

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Performance 2008: Productivity, Employment, and Growth in the World's Economies

With business cycles past their peaks, annual productivity growth in the advanced economies has slowed to between 1 and 1.5 percent. Despite better European performance in the past two years the United States maintains its productivity edge over the longer term. Meanwhile in emerging economies productivity growth continued to accelerate topping 8 percent in the BRIC countries (Brazil, Russia, India, China), on average in 2007. Rapid adjustment to competitive pressures and greater innovation in emerging economies signals fundamental and lasting changes in the global competitive landscape.

Key Observations

The information contained in this Productivity Brief is based on annual data on productivity, growth, and employment trends through 2007, and projections for 2008, based on The Conference Board and the University of Groningen Growth and Development Centre's *Total Economy Database*. A more comprehensive report based on this data, *Performance 2008: Productivity, Employment, and Growth in the World's Economies*, is slated for publication by The Conference Board at the end of January 2008.

- Productivity growth rates in Europe, Japan, and the United States were low in 2007. At 1.1 per cent, U.S. labor productivity growth, continued to underperform compared to the longer-term, structural productivity trend of between 1.5 and 2.5 per cent. Growth rates for Europe and Japan came in at just 1.4 percent.
- Compared to 2006, Europe suffered a slowdown in labour productivity growth as the employment growth rate accelerated increased beyond the output growth rate in 2007. Moreover reforms in labor markets and service sector product markets are paying off slowly.

- U.S. labor productivity growth was close to that of many European countries, such as Germany (1 percent) and France (0.6 percent). Only five countries (Austria, Finland, Greece, Ireland, and the United Kingdom) saw productivity growth rates well in excess of United States. The United Kingdom recorded the fastest labor productivity growth rate in the EU-15 at 2.9 percent, which is the result of very strong GDP growth at 3.1 percent but a meagre improvement in working hours at only 0.2 percent.
- Despite the slow increase in U.S. labor productivity, the level of GDP per hour worked (after a correction for differences in price levels using purchasing power parities) is still among the highest in the advanced economies. In 2007, output per hour worked came at U.S. \$52.10 - very close to the levels of France, the Netherlands, Austria, and only significantly behind two smaller economies, Norway (\$70.10) and Luxembourg (\$70.30).
- For the BRIC countries (Brazil, Russia, India, China) average productivity growth, which was 7.6 per cent from 2000-2007, accelerated from 7.5 percent between 2000-2005, to 7.9 percent in 2006 and to 8.3 percent in 2007. Most of this impressive performance is driven by China.
- The economic performance in the BRIC countries varies widely. These differences are due to startling differences in productivity growth. Labor productivity growth ranged from 0.3 percent in Brazil to 10.5 percent in China from 2007-2007, GDP growth ranged from 3 percent to 11.6 percent in China and Brazil respectively. Employment growth was slowest in Russia (0.6 percent from 2007-2007), followed by China (1.0 percent) but much faster in Brazil (2.7 percent) and India (2.5 percent).
- Productivity levels in emerging economies are still very low at between 10 percent and 40 percent of the U.S. level. However, as the wage gaps are generally even larger, the labor cost per unit of output provides a cost competitiveness advantage to emerging economies which for manufacturing can be as low as 20 percent of the U.S level and 25 percent of the European level.
- One of the most significant changes is the emphasis on innovation-related spending in the emerging world. While expenditure on R&D and investment in information and communication technology in emerging economies are still at less than half of the level in advanced economies, the spending gap is narrowing. This reflects a commitment to compete on the basis of innovation capacity not just cost.

The Impact on the Global Economy and Business

The narrowing productivity gap between advanced and emerging economies has important implications for the global competitive landscape. It is not surprising that productivity gaps narrow as emerging economies evolve from a dominant agricultural sector to manufacturing and services. These gains are often transitional and are not sustained once the domestic economy is pressed to open up more widely, becoming more flexible and dynamic. However, today there is increasing evidence that rapid productivity growth in many emerging economies reflects the entry and growth of firms that develop competitive market advantages in productivity and cost, and which replace firms that lose their competitive edge.

Notably China and several countries in Central and Eastern Europe are also developing competitive advantages through technological change, particularly in manufacturing, and market-appropriate innovations. These firms strengthen their competitive performance by altering their scale and location of operations, improving the capabilities of their workforce, their product-mix, and their organizational structure. They, in short, model the competitive behavior of large multi-national enterprise. These restructuring activities, which reflect how ongoing businesses continuously adapt to the changing economic environment, are strengthening the performance of many firms in emerging economies making them innovators that challenge global companies everywhere.

Given these competitive challenges, and with a projected slowdown in the growth of the labor force relative to the total population, advanced countries will need to raise productivity growth rates to well beyond 2 percent per year over the next two decades to maintain current per-capita income growth rates — a key factor in sustaining living standards. Given the limits to labor force growth almost everywhere, innovation will have to drive the growth process.

The United States, despite its recent string of relatively anemic annual productivity growth rates, seems better positioned than most European countries and Japan to raise productivity growth beyond 2 percent because more restructuring has been realized in the past decade or two. As is clear from detailed “sources of growth” analysis, innovation is more deeply embedded in the business process in the United States, particularly in service industries. Large investments in information and communications technology (ICT) have gone together with rapid increases in efficiency, which are not found in Europe and Japan. In Europe, structural reforms, particularly in labor markets and services industries, are paying off slowly in terms of faster productivity growth. Furthermore, Europe seems to have greater trouble in having innovation and knowledge creation turn into the creation of more productive jobs, as output and employment growth — at least in the short run — often offset each other.

Financial turbulence and on-going recession concerns cloud the outlook for 2008. The Conference Board January forecast, which is the basis for the U.S. productivity and labor contribution estimates in this report, is based on the judgement that the major adjustments in the housing and financial sectors occurred in 2007. The drag on the economy from these events will lessen somewhat in 2008. At 2.6 percent, GDP growth will remain well below the longer-term average but productivity growth will begin to improve somewhat to 1.7 percent in 2008.

In contrast, Europe’s productivity growth is more likely to slow further to 1 percent as many of the same forces that have suppressed growth in the United States take hold there. A substantial part of any faster productivity growth in both the United States and Europe will need to come from investment in new capital and innovation. The main drivers of these investments will be technological change and innovation, the skill and performance level of their labor force, and investment in organizational intangibles, including management and workplace practices, organizational structure, ICT applications, and human resource strategies.

As competitive models converge, all advanced and emerging countries increasingly face problems in attracting talented workers to make these productivity advances possible. Because of their greater scarcity, skilled workers are the key to moving the innovation and productivity frontiers as major drivers of economic growth.

Context: The Global Productivity Story in 2007

The trend toward sluggish productivity growth in advanced economies, evident since 2005, continued in 2007. In the United States, the growth in output per hour worked (productivity growth) has been slow for the third consecutive year at 1.1 per cent in 2007, compared to 1.5 percent in 2005 and 1 percent in 2006. In Europe, labor productivity growth reached 1.4 percent, down from 1.7 percent in 2006, but still an improvement over the 2000 to 2005 time period. In Japan, productivity growth improved slightly from 1.3 percent in 2006 to 1.4 percent in 2007.

These productivity growth rates are well below the structural productivity trends, representing the rate at which productivity can grow given the medium- and long-term dynamics of the economy in terms of the growth and composition of the labor force, the change in capital and asset composition, and technology trends. This trend is in the order of 1.5-2.5 percent for the total economy, and 2-3 percent for the business or market sector of the economy. An important reason for the below-trend performance is that in 2007, most advanced countries were at, or already well past, the peak of their business cycle, implying that the increase in jobs growth has caught up with accelerated output growth. With growth slowing down, additional jobs may not help to improve productivity much in the short run.

In the longer term, the United States trend is closer to the upper boundary of the structural growth trend (2-2.5 percent), and Europe closer to the lower boundary (1.5-2 percent). In recent decades, the United States has made good progress in restructuring its economy by raising productivity in many service industries at least as fast as it has in manufacturing. Information and communication technology has become deeply embedded in business practices, making them much more productive.

In Europe and Japan, some progress is being made on structural reforms, particularly in labor markets and services industries. But many of these reforms have come late and are often patchy. One example — compromises in the EU's Services Directive introduced in 2006, which is specifically aimed at creating a common market for services across the European Union, seems to reduce its effectiveness. Furthermore, innovation and knowledge creation in Europe and Japan does not appear to result easily in simultaneous growth of output and employment.

But progress differs among countries. In Germany, strong GDP performance (2.6 percent) in 2007 has been largely offset by a substantial improvement in total working hours at 1.6 percent, so that labor productivity increased at 1 per cent — a similar rate as in the United States. Much of the growth recovery in Germany has been driven by the export sector, which has undergone major restructuring in the face of competition from Central and Eastern Europe and other emerging economies.

Growth dynamics of the French economy have fallen behind that of Germany since 2005. In particular in 2007, France has not shown the same degree of acceleration in GDP or employment growth as Germany. Investments in machinery and equipment and in particular exports have significantly slowed compared to 2006 — signs that the restructuring of the French economy may not have proceeded as fast as in Germany.

The United Kingdom has recorded the fastest labor productivity growth rate in the EU-15 at 2.9 percent, which is the result of a very strong GDP growth at 3.1 percent but a meagre improvement in working hours at only 0.2 percent.

Japan continues to suffer from contracted growth in both GDP and employment and slow productivity in the large service sector of the economy is an important bottleneck.

Growth in Emerging Markets

In contrast to the advanced economies, productivity growth in the major emerging economies has continued to accelerate in 2007. For the BRIC countries (Brazil, Russia, India, China), average productivity growth was 8.3 percent in 2007 (compared to 7.6 percent for the period 2000-2007). But there are large differences ranging from 1.9 percent productivity growth in Brazil up to 10.6 percent in China. In Eastern Europe, productivity increased at 3.5 percent on average in 2007.

The continued rapid productivity growth in many emerging economies shows that transitional reallocations, represented by a huge churning of firms and employees and reallocations from low to higher productivity activities, are still an important component of change. Although these dynamic reallocations take place everywhere, they are still the lion's share of the growth process in these countries. For example, in China's industrial sector, there has been a net job loss of more than 5 per cent per year on average between 1995-2003, which is the result of 11 per cent job creation and 16 per cent job losses on an annual basis. This has gone together with a productivity growth of 20.4 per cent (in nominal terms) per year. Preliminary analysis of firm-level data through 2005 suggests that this process is continuing at a rapid pace. In India, reallocations between major sectors of the economy, in particular the decline in agriculture and the rise in services GDP and employment, have driven much of the country's aggregate GDP performance.

However, in the longer run some emerging countries, notably China and several others in Central and Eastern Europe, are also developing competitive advantages through innovation. Technological change is still largely taking place in manufacturing, as is clear from estimates on R&D from the Organization for Economic Cooperation and Development which show R&D expenditure ratios having moved ahead ahead of 1 percent of GDP in China and Russia. However, ICT capital deepening accounted for only 2 percent of labor productivity growth in Russia, compared to 3 percent in India and 9 percent in China. With the possible exception of ICT services in India, many service industries in emerging economies still show limited capabilities for innovation.

About this Brief and The Conference Board & GGDC *Total Economy Database*

This productivity brief offers an up-to-date and timely overview of annual data on key productivity, growth, and employment trends through 2007, and projections for 2008, based on The Conference Board and the Groningen Growth and Development Centre's *Total Economy Database*. This brief is a prelude to our annual Performance series report. The 2008 edition will be released by the end of January. The basic statistical tables at the end of this brief provide a comprehensive overview of productivity, GDP, hours worked, and growth rates for 38 advanced economies in the world, most of which are a member of the Organization for Economic Cooperation and Development. In this brief, we also provide estimates for major emerging economies in Central and Eastern Europe, Brazil, Russia, India, China, and Mexico. In the full report, we provide estimates of productivity, GDP, and employment for more than 100 countries, including all major countries in the rest of the world. In total the database covers 98 percent of world output. Underlying these tables is a publicly available database including annual series on output, population employment, and working hours (see <http://www.conference-board.org/economics/database.cfm>). The aggregate analysis is supported by The Conference Board's analysis of sectoral and industry trends, which are published in cooperation with a consortium on the EU KLEMS productivity and growth database (see <http://www.euklems.net>).

Data Sources for Productivity Estimates

All data in this report are derived from the Total Economy Database of The Conference Board and the Groningen Growth and Development Centre (GGDC). Data and details of sources and data adjustments can be accessed through The Conference Board website at <http://www.conference-board.org/economics/database.cfm>.

The data for this report are based on the latest national accounts, labor surveys, and other employment statistics available for individual countries. In order to maximize international consistency, the figures are largely derived from international sources, such as the National Accounts and Labor Force Statistics of the OECD, the Statistical Office of the European Union (Eurostat) and the Foreign Labor Statistics of the Bureau of Labor Statistics (U.S. Department of Commerce). However, for many countries data from international sources have been supplemented with those from national statistical offices to increase timeliness when possible.

The estimates for 2007 are preliminary and those for 2008 are derived from a variety of forecasts and projections. For most countries we used the GDP and employment estimates from the latest OECD Economic Outlook of December 2007. For the United States, we used the The Conference Board's January 2008 estimate on GDP for 2007 and forecast for 2008 to which we added an estimate of employment growth.

The measures of productivity levels in Table 6 are expressed in terms of U.S. dollars adjusted for differences in relative price levels across countries using purchasing power parities (PPPs) as published by the OECD. For this year's dataset for the OECD we used purchasing power parities for the benchmark year 2005, which we updated to 2007 using the aggregate inflation rates for each country relative to the United States.

Productivity estimates are relatively sensitive to measurement error in the underlying output and labor input figures. It is reasonable to expect that actual productivity growth rates are in a range of 0.2 percentage-point around the point-estimates of growth rates reported in Tables 1-3. Readers should also use caution when interpreting numerical rankings for individual countries in Table 6. In particular, not much significance should be attached to differences in comparative levels of productivity of less than 3 percentage-points around the point estimates.

Table 1: Summary Estimates of Growth of Labor Productivity, Real GDP and Total Hours Worked, Advanced Countries					
	United States	EU-15 (old)(a)	EU-12 (new)(b)	EU-27 (enlarged)(c)	Japan
<i>Labor Productivity Growth (GDP per hour, annual average, percent)</i>					
1987-1995	1.2	2.2	--	--	3.2
1995-2007	2.1	1.4	3.9	1.8	1.8
of which:					
2000-2007	2.0	1.2	4.4	1.6	1.9
2005	1.5	1.0	2.7	1.0	2.1
2006	1.0	1.5	4.1	1.7	1.3
2007 (preliminary)	1.1	1.3	3.5	1.4	1.4
2008 (projected)	1.7	1.0	4.0	1.3	1.9
<i>Real GDP Growth (annual average, percent)</i>					
1987-1995	2.7	2.3	--	--	2.9
1995-2007	3.1	2.3	4.1	2.5	1.3
of which:					
2000-2007	2.4	2.0	4.8	2.3	1.5
2005	3.1	1.6	4.8	2.0	1.9
2006	2.9	2.8	6.4	3.2	2.2
2007 (preliminary)	2.3	2.7	6.1	3.1	1.9
2008 (projected)	2.6	2.0	5.4	2.4	1.6
<i>Growth in Total Hours Worked (annual average, percent)</i>					
1987-1995	1.6	0.1	--	--	-0.2
1995-2007	1.0	0.9	0.1	0.7	-0.5
of which:					
2000-2007	0.4	0.8	0.4	0.7	-0.4
2005	1.5	0.6	2.0	0.9	-0.2
2006	1.9	1.3	2.3	1.6	0.9
2007 (preliminary)	1.2	1.4	2.5	1.7	0.4
2008 (projected)	0.9	1.0	1.3	1.0	-0.4
a) referring to membership of the European Union until 30 April 2004					
b) referring to new membership of the European Union as of 1 May 2004 and including Bulgaria and Romania					
c) referring to all members of the European Union including Bulgaria and Romania					
Source: The Conference Board and Groningen Growth and Development Centre, Total Economy Database, January 2008					

Table 2: Growth of Labor Productivity, Real GDP and Persons Employed, BRIC Countries

	BRIC*	Brazil	Russia*	India	China
<i>Labor Productivity Growth (GDP per persons, annual average, percent)</i>					
1987-1995	6.2	0.2	-6.8	3.8	6.2
1995-2007	5.7	0.6	4.2	4.6	7.5
of which:					
2000-2007	7.6	0.3	5.7	4.9	10.5
2005	7.4	-0.1	5.8	6.6	9.4
2006	7.9	1.2	6.3	6.7	9.8
2007 (preliminary)	8.3	1.9	6.7	5.9	10.6
<i>Real GDP Growth (annual average, percent)</i>					
1987-1995	7.8	1.7	-9.1	5.9	7.9
1995-2007	7.2	2.7	4.3	6.8	8.6
of which:					
2000-2007	9.3	3.0	6.3	7.5	11.6
2005	9.1	2.9	6.4	9.2	10.4
2006	9.4	3.7	6.7	9.4	10.7
2007 (preliminary)	9.9	4.0	7.0	8.5	11.5
<i>Growth in Persons Employed (annual average, percent)</i>					
1987-1995	1.5	1.5	-2.5	2.1	1.5
1995-2007	1.4	2.1	0.1	2.1	1.0
of which:					
2000-2007	1.5	2.7	0.6	2.5	1.0
2005	1.5	3.0	0.6	2.5	0.9
2006	1.4	2.4	0.3	2.5	0.8
2007 (preliminary)	1.4	2.1	0.3	2.5	0.8

* The growth rates for Russia from 1987-1995 refer to 1990-1995

Source: The Conference Board and Groningen Growth and Development Centre, Total Economy Database, January 2008

Table 3: Labor Productivity Growth (GDP per hour, annual average, percent)				2005	2006	2007	2008
	1987-1995	1995-2007	2000-2007			preliminary	projected
United States	1.2	2.1	2.0	1.5	1.0	1.1	1.7
European Union (EU-15, old)(a)	2.2	1.4	1.2	1.0	1.5	1.3	1.0
Austria	2.8	2.3	1.4	-0.4	2.3	2.7	1.8
Belgium	2.2	1.4	0.9	-1.2	1.5	1.3	0.9
Denmark	2.6	1.0	0.8	1.3	0.9	-0.3	1.8
Finland	3.2	2.5	2.3	1.9	3.2	2.6	2.2
France	2.2	1.7	1.3	1.8	0.9	0.6	0.9
Germany	2.5	1.7	1.4	1.5	2.4	1.0	1.1
Greece	0.8	2.4	3.1	2.9	3.0	2.4	2.2
Ireland	2.4	3.7	2.5	0.5	1.5	2.3	1.6
Italy	2.1	0.6	0.3	0.4	1.0	1.0	0.3
Luxembourg	2.0	1.6	0.9	2.0	0.2	0.6	2.5
Netherlands	1.8	1.4	1.2	1.8	0.0	0.7	1.2
Portugal	1.6	1.7	0.3	1.1	0.2	1.5	1.2
Spain	2.3	-0.2	0.0	-0.3	0.1	0.6	0.1
Sweden	1.1	2.5	2.6	3.4	2.9	1.3	1.7
U.K.	2.0	2.2	2.3	1.0	2.4	2.9	1.7
European Union (EU-12, new)(b)	--	3.9	4.4	2.7	4.1	3.5	4.0
Bulgaria		1.7	3.5	3.8	3.3	4.0	4.7
Cyprus	--	1.0	0.3	1.5	2.2	2.2	5.1
Czech Republic	--	3.4	4.4	4.4	4.6	4.5	3.8
Estonia	--	7.1	6.6	7.2	5.4	6.6	6.2
Hungary	--	2.3	2.2	4.3	3.4	2.1	2.1
Latvia	--	6.6	7.1	8.0	7.3	8.2	6.3
Lithuania	--	5.7	6.6	1.9	6.7	6.2	7.3
Malta	--	1.3	0.7	1.0	2.5	1.8	1.6
Poland	--	4.2	3.3	0.7	3.1	1.9	3.5
Romania	--	4.0	7.4	3.1	5.2	4.7	4.9
Slovakia	--	5.1	5.1	2.4	6.5	6.3	5.7
Slovenia	--	4.2	3.9	4.0	4.5	3.8	3.7
European Union (EU-27, enlarged)(c)	--	1.8	1.6	1.0	1.7	1.4	1.3
Japan	3.2	1.8	1.9	2.1	1.3	1.4	1.9
Other OECD members	1.3	2.0	2.1	2.2	2.7	1.6	1.8
Australia	1.4	1.8	1.6	0.2	0.7	1.4	1.5
Canada	1.1	1.4	1.1	2.3	0.8	0.2	1.0
Iceland	0.5	2.3	2.4	4.7	-2.2	-3.8	0.1
Mexico	-0.3	0.7	0.6	0.4	2.8	0.6	1.1
New Zealand	1.5	1.2	1.1	0.2	1.1	2.2	1.6
Norway	3.1	2.0	1.8	1.2	-0.3	1.1	2.0
South Korea	5.9	4.6	4.5	4.6	5.8	3.6	4.0
Switzerland	0.8	1.2	1.1	1.9	1.0	0.8	0.9
Turkey	1.5	3.2	4.1	6.2	4.9	3.2	3.5
a) referring to membership of the European Union until 30 April 2004							
b) referring to new membership of the European Union as of 1 May 2004 and including Bulgaria and Romania							
c) referring to all members of the European Union including Bulgaria and Romania							
Source: The Conference Board and Groningen Growth and Development Centre, Total Economy Database, January 2008							

Table 4: Real GDP Growth (annual average, percent)							
	1987-1995	1995-2007	2000-2007	2005	2006	2007	2008
						preliminary	projected
United States	2.7	3.1	2.4	3.1	2.9	2.3	2.6
European Union (EU-15, old)(a)	2.3	2.3	2.0	1.6	2.8	2.7	2.0
Austria	2.8	2.4	2.0	2.0	3.3	3.3	2.5
Belgium	2.4	2.2	1.9	1.1	3.2	2.6	1.9
Denmark	1.8	2.2	1.7	3.1	3.6	2.0	1.7
Finland	0.8	3.8	3.1	2.9	5.0	4.2	2.9
France	2.1	2.2	1.7	1.7	2.0	1.9	1.8
Germany	2.7	1.6	1.2	0.9	2.9	2.6	1.8
Greece	1.8	4.0	4.3	3.7	4.4	4.1	3.7
Ireland	5.3	7.1	5.3	5.5	5.7	5.2	2.9
Italy	1.9	1.4	1.0	0.1	1.9	1.8	1.3
Luxembourg	5.2	4.8	3.8	4.0	6.2	5.2	4.9
Netherlands	2.9	2.7	1.7	1.5	3.0	3.0	2.4
Portugal	3.2	2.3	1.0	0.5	1.3	1.8	2.0
Spain	2.8	3.7	3.4	3.5	3.9	3.8	2.5
Sweden	1.2	3.0	2.8	2.9	4.2	3.4	3.2
U.K.	2.0	2.8	2.6	1.9	2.8	3.1	2.0
European Union (EU-12, new)(b)	--	4.1	4.8	4.8	6.4	6.1	5.4
Bulgaria		2.8	5.5	6.2	6.1	6.3	6.0
Cyprus	--	3.6	3.4	3.9	3.8	3.8	3.9
Czech Republic	--	3.2	4.4	6.1	6.3	6.1	4.6
Estonia	--	7.6	8.6	10.2	11.2	7.8	6.4
Hungary	--	3.9	3.9	4.1	3.9	1.8	2.6
Latvia	--	7.5	9.0	10.6	11.9	10.5	7.2
Lithuania	--	6.5	7.9	7.9	7.7	8.5	7.5
Malta	--	2.1	1.4	3.1	3.1	3.1	2.8
Poland	--	4.6	4.0	3.5	6.1	6.5	5.6
Romania		2.9	6.0	4.1	7.7	6.0	5.9
Slovakia	--	4.8	5.8	6.0	8.3	9.3	7.3
Slovenia	--	4.3	4.3	4.1	5.7	6.0	4.6
European Union (EU-27, enlarged)(c)	--	2.5	2.3	2.0	3.2	3.1	2.4
Japan	2.9	1.3	1.5	1.9	2.2	1.9	1.6
Other OECD members	3.4	3.7	3.2	3.6	4.0	3.7	3.8
Australia	3.3	3.6	3.3	2.8	2.5	4.3	3.5
Canada	2.0	3.2	2.6	2.9	2.8	2.6	2.4
Iceland	0.3	4.1	3.6	7.2	2.8	1.2	1.0
Mexico	2.3	3.7	2.4	3.0	4.9	3.0	3.6
New Zealand	2.0	2.9	3.2	2.0	1.9	3.4	1.9
Norway	2.7	2.9	2.4	2.7	2.1	3.4	3.6
South Korea	8.3	4.5	4.7	4.2	5.0	4.9	5.2
Switzerland	1.4	1.8	1.6	1.9	3.2	2.7	2.0
Turkey	3.8	4.4	4.7	7.4	6.1	5.1	5.8
a) referring to membership of the European Union until 30 April 2004							
b) referring to new membership of the European Union as of 1 May 2004 and including Bulgaria and Romania							
c) referring to all members of the European Union including Bulgaria and Romania							

Source: The Conference Board and Groningen Growth and Development Centre, Total Economy Database, January 2008

Table 5: Total hours growth (annual average, percent)							
	1987-1995	1995-2007	2000-2007	2005	2006	2007	2008
						preliminary	projected
United States	1.6	1.0	0.4	1.5	1.9	1.2	0.9
European Union (EU-15, old)(a)	0.1	0.9	0.8	0.6	1.3	1.4	1.0
Austria	0.0	0.1	0.6	2.5	1.0	0.6	0.6
Belgium	0.2	0.8	1.0	2.3	1.6	1.3	1.1
Denmark	-0.8	1.2	0.9	1.7	2.7	2.3	-0.1
Finland	-2.3	1.3	0.8	1.0	1.7	1.6	0.7
France	-0.1	0.5	0.4	-0.1	1.1	1.3	0.9
Germany	0.2	-0.1	-0.2	-0.6	0.5	1.6	0.7
Greece	1.0	1.6	1.2	0.8	1.3	1.7	1.5
Ireland	2.8	3.2	2.7	5.0	4.1	2.9	1.2
Italy	-0.2	0.8	0.7	-0.3	0.9	0.8	0.9
Luxembourg	3.1	3.1	2.9	1.9	6.0	4.6	2.3
Netherlands	1.1	1.2	0.5	-0.2	3.0	2.3	1.2
Portugal	1.6	0.6	0.7	-0.6	1.0	0.3	0.8
Spain	0.5	3.9	3.4	3.8	3.7	3.2	2.4
Sweden	0.1	0.5	0.2	-0.5	1.2	2.0	1.5
U.K.	-0.1	0.6	0.3	0.8	0.4	0.2	0.3
European Union (EU-12, new)(b)	--	0.1	0.4	2.0	2.3	2.5	1.3
Bulgaria	--	1.2	2.0	2.4	2.7	2.2	1.2
Cyprus	--	2.6	3.1	2.4	1.6	1.6	-1.1
Czech Republic	--	-0.2	-0.1	1.6	1.6	1.6	0.8
Estonia	--	0.4	1.9	2.7	5.5	1.1	0.2
Hungary	--	1.6	1.7	-0.1	0.4	-0.3	0.5
Latvia	--	0.9	1.8	2.4	4.3	2.1	0.8
Lithuania	--	0.8	1.2	6.0	0.9	2.2	0.2
Malta	--	0.8	0.7	2.0	0.7	1.3	1.2
Poland	--	0.3	0.6	2.9	2.9	4.6	2.1
Romania	--	-1.0	-1.3	1.0	2.3	1.2	1.0
Slovakia	--	-0.3	0.6	3.5	1.6	2.8	1.5
Slovenia	--	0.1	0.4	0.1	1.2	2.1	0.9
European Union (EU-27, enlarged)(c)	--	0.7	0.7	0.9	1.6	1.7	1.0
Japan	-0.2	-0.5	-0.4	-0.2	0.9	0.4	-0.4
Other OECD members	2.0	1.6	1.1	1.4	1.3	2.1	1.9
Australia	1.9	1.7	1.7	2.6	1.8	2.9	2.0
Canada	0.9	1.8	1.4	0.6	1.9	2.4	1.3
Iceland	-0.2	1.7	1.2	2.4	5.1	5.2	1.0
Mexico	2.6	2.9	1.8	2.5	2.0	2.4	2.5
New Zealand	0.4	1.7	2.1	1.8	0.8	1.2	0.3
Norway	-0.4	0.9	0.5	1.4	2.4	2.3	1.6
South Korea	2.3	0.0	0.2	-0.4	-0.8	1.3	1.1
Switzerland	0.6	0.6	0.5	0.0	2.2	1.9	1.1
Turkey	2.2	1.1	0.6	1.1	1.2	1.8	2.2
a) referring to membership of the European Union until 30 April 2004							
b) referring to new membership of the European Union as of 1 May 2004 and including Bulgaria and Romania							
c) referring to all members of the European Union including Bulgaria and Romania							
Source: The Conference Board and Groningen Growth and Development Centre, Total Economy Database, January 2008							

Table 6: Labor Productivity and Per Capita Income Levels and the Effects of Working Hours and Labor Utilization, 2007								
	Labor Productivity			Effect of	Effect of	Average Per Capita Income		
	GDP/hour	as %		Working	Employment/	GDP/hour	as %	
	(US\$)	of U.S.	Rank	Hours	Population	(US\$)	of U.S.	Rank
					Ratio			
Luxembourg	70.3	135%	1	-13%	50%	78,411	172%	1
Norway	70.1	135%	2	-29%	10%	53,011	116%	2
Austria	53.6	103%	3	-15%	-3%	38,596	85%	6
Belgium	53.2	102%	4	-10%	-14%	35,751	78%	13
Netherlands	52.3	100%	5	-21%	4%	38,118	84%	9
U.S.A	52.1	100%	6	0%	0%	45,604	100%	3
France	51.3	99%	7	-12%	-14%	32,906	72%	18
Germany	49.2	95%	8	-19%	-2%	33,880	74%	16
Ireland	47.7	92%	9	4%	3%	45,204	99%	4
U.K.	46.1	89%	10	-9%	-3%	34,827	76%	15
Italy	45.6	87%	11	-11%	-10%	30,649	67%	19
Sweden	45.5	87%	12	-9%	1%	36,425	80%	12
Denmark	44.5	85%	13	-9%	6%	37,185	82%	11
Finland	43.5	83%	14	-3%	-3%	35,304	77%	14
Switzerland	43.3	83%	15	-11%	13%	38,842	85%	5
Australia	42.8	82%	16	-2%	4%	38,451	84%	7
Canada	42.2	81%	17	-1%	3%	37,812	83%	10
Japan	37.1	71%	18	0%	2%	33,303	73%	17
Spain	37.1	71%	19	0%	-6%	29,774	65%	21
Greece	36.8	71%	20	6%	-10%	30,369	67%	20
Iceland	36.2	69%	21	0%	14%	38,311	84%	8
Malta	33.2	64%	22	0%	-13%	23,039	51%	27
Slovenia	32.5	62%	23	-3%	-2%	26,438	58%	24
Cyprus	31.0	59%	24	1%	-1%	26,863	59%	23
New Zealand	30.3	58%	25	-2%	4%	27,382	60%	22
Slovakia	27.9	54%	26	-1%	-9%	19,636	43%	30
Portugal	25.2	48%	27	-1%	0%	21,565	47%	29
Hungary	24.8	48%	28	5%	-11%	19,260	42%	31
Czech Republic	24.2	46%	29	5%	1%	23,898	52%	26
Korea	23.5	45%	30	10%	-1%	24,372	53%	25
Estonia	22.0	42%	31	5%	0%	21,618	47%	28
Lithuania	21.1	41%	32	2%	-6%	16,654	37%	33
Poland	20.3	39%	33	4%	-8%	16,028	35%	34
Latvia	19.1	37%	34	2%	0%	17,577	39%	32
Turkey	14.9	29%	35	2%	-10%	9,300	20%	38
Mexico	14.2	27%	36	6%	-6%	12,412	27%	35
Bulgaria	14.1	27%	37	-2%	0%	11,746	26%	36
Romania	13.0	25%	38	3%	-4%	10,979	24%	37
EU-15 (present)(a)	45.9	88%		-10.1%	-5.9%	32349	71%	
EU-12 (new)(b)	19.9	38%		3.0%	-6.0%	15390	34%	
EU-27 (enlarged)(c)	39.8	76%		-5.8%	-6.4%	28759	63%	
a) referring to membership of the European Union until 30 April 2004								
b) referring to new membership of the European Union as of 1 May 2004 and including Bulgaria and Romania								
c) referring to all members of the European Union including Bulgaria and Romania								
Source: The Conference Board and Groningen Growth and Development Centre, Total Economy Database, January 2008 with GDP converted to US\$ at 2007 EKS PPPs (updated from 2005 benchmark)								